

CLAIMS

What is claimed is:

1. A cable tray comprising
a cable support assembly having a first end and a second end;
5 a connector receiving member integrally connected to the cable support assembly; and
a connector receiving element integrally connected to the first end of the cable support
assembly, the connector receiving element adapted to be placed in registry with the
corresponding connector receiving member from an adjacent tray so that a fastener may be
placed therein.
- 10 2. The cable tray of claim 1 wherein the fastener is electrically conductive.
3. The cable tray of claim 1 wherein the fastener further comprises a carriage bolt and a nut.
4. The cable tray of claim 1 wherein the cable tray further comprises a plurality of
longitudinal wires interconnected with a plurality of transverse wires.
5. The cable tray of claim 1 wherein the cable tray includes a weight-bearing assembly and at
15 least one sidewall.
6. The cable tray of claim 5 wherein at least one connector receiving element is fixedly
attached to the weight-bearing assembly of the cable tray and at least one connector receiving
element is fixedly attached to at least one sidewall of the cable tray.
7. The cable tray of claim 1 wherein the connector receiving element comprises an
20 elongated ellipse with at least two generally parallel straight sections each having a first end and
a second end connected on at least the first end to a closed member.
8. The cable tray of claim 7 wherein the connector receiving element includes at least one J-
shaped hook.

9. The cable tray of claim 1 wherein the connector receiving element is attached on the exterior of the cable tray assembly.

10. The cable tray of claim 4 wherein the connector receiving member comprises at least two parallel transverse wires defining a space therebetween on at least one end of the cable support assembly.

11. The cable tray of claim 1 further comprising at least one anti-friction roller rotatably attached to at least one transverse wire.

12. A cable tray connecting system comprising

a first cable tray comprising a cable support assembly having a first end and a second end, a connector receiving member integrally connected to the cable support assembly, and a connector receiving element integrally connected to the first end of the cable support assembly, wherein the connector receiving member is adapted to be placed in registry with a corresponding connector receiving member from an adjacent tray;

a second cable tray further comprising a cable support assembly having a first end and a second end, a connector receiving member integrally connected to the cable support assembly, and a connector receiving element integrally connected to the first end of the cable support assembly, wherein the connector receiving member is adapted to be placed in registry with a corresponding connector receiving member from an adjacent tray; and

an electrically conductive fastener that is passed through the connector receiving element of the first tray and the connector receiving member of the second tray to fixedly connect the adjacent trays.

13. The cable tray connecting system of claim 11 wherein the cable support assembly further comprises a pre-formed shape having at least one interior angle, wherein said shape allows for

intersection of a plurality of cable trays at angles other than 180 degrees.

14. The cable tray connecting system of claim 13 wherein said pre-formed shape is an L-shape.

15. The cable tray connecting system of claim 13 wherein said pre-formed shape is a T-shape.

5 16. The cable tray connecting system of claim 13 wherein said pre-formed shape is a cruciform-shape.

17. The cable tray connecting system of claim 13 wherein said interior angle is rounded.

18. The cable tray connecting system of claim 13 wherein the pre-formed shape further comprises a first end and second end, wherein said first end has a different width than said
10 second end.

19. A method for surface treating a cable tray which comprises

providing a cable tray;

fixedly attaching at least one connector receiving element to the cable tray;

providing a first mask blank to cover at least a portion of the at least one connector
15 receiving element;

providing a second mask blank to cover at least a portion of the cable tray at a position where the at least a portion of the cable tray that is masked by the second mask blank will be in registry with a connector receiving element on an adjacent cable tray;

placing a surface treatment on an unmasked portion of the cable tray that will render said
20 uncovered portion non-electrically conductive; and

removing the mask blanks.

20. The method for surface treating a cable tray of claim 19 wherein the treatment comprises painting.

21. The method for surface treating a cable tray of claim 19 wherein the treatment comprises powder coating.

22. A connector for a cable tray connecting system that comprises an elongated ellipse with at least two approximately parallel straight members having a first end and a second end, wherein at least the first ends of the straight members are connected to a curved member.

23. The connector for a cable tray connecting system of claim 22 wherein the connector comprises at least one J-shaped hook.